



# Air Force Research Laboratory|AFRL

*Science and Technology for Tomorrow's Air and Space Force*

## Success Story

### VISIONARY TECHNOLOGY DEMONSTRATION SUPPORTS SYNCHRONIZED AIR FORCE OPERATIONS



Demonstration of integrated information extraction, sharing, and presentation technologies provides vision for synchronized Combat Air Force (CAF) and Mobility Air Force (MAF) operations.



Air Force Research Laboratory  
Wright-Patterson AFB OH

## **Accomplishment**

A joint Electronic Systems Center (ESC), AFRL, Air Mobility Command (AMC), and Air Combat Command (ACC) Team, with support from the Air Force Command and Control & Intelligence, Surveillance, and Reconnaissance Center (AFC2ISRC) and the Air Mobility Battle Lab (AMBL), conducted a demonstration that showed enhanced Air Force operations by providing command and controllers and aircrews common situation awareness and proactive problem identification/resolution capabilities in accordance with the Global Strike and Global Mobility Concept of Operations (CONOPS). This effort was called the Global CONOPS Synchronization Demonstration.

The Human Effectiveness Directorate's Global Air Mobility Advanced Technologies, along with the Information Directorate's Integrated Flight Management/Advanced Technology Demonstration and Portable Interactive DataWall software and display technologies, played a central role in this demonstration. They provided new capabilities and efficiencies in information processing and flow, innovative visualization, common situation awareness, proactive problem identification, and support for rapid resolution to all command and control nodes and simulated aircraft.

## **Background**

Major General Craig Weston, of ESC, tasked ESC to develop a visionary demonstration that would highlight the operational benefits of improved interoperability between MAF and CAF Command Centers and airborne aircraft. A joint ESC, AFRL, AMC, and ACC Team, with support from the AFC2ISRC and the AMBL, built and conducted a demonstration based on a Global Strike mission scenario involving a B-2 bomber mission launched from the continental United States.

The B-2 bomber rendezvoused with multiple MAF tankers en route to the targets. Events en route (such as Notices to Airmen, changing weather, airspace restrictions, and retargeting) required rapid replanning and retasking capabilities. Communications and information presentation technologies enabled the synchronous coordination and retasking of both airborne assets and ground-based command and control elements.

## **Additional information**

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (03-HE-27)

Human Effectiveness  
Support to the Warfighter